CLAIMS:

1. A method of forming and connecting an antenna to a feedthrough member of a housing, the method comprising the steps of:

positioning the feedthrough member and an antenna template relative to each other;

connecting a first portion of at least one electrically conducting wire to said feedthrough member;

winding said wire at least once around the antenna template; and

connecting a second portion of each wire to said feedthrough member.

2. A method according to claim 1, wherein each of the steps are performed in consecutive order.

3. A method according to any one of the preceding claims, wherein the step of positioning the feedthrough member and the antenna template relative to each other includes removably mounting the feedthrough member to a workspace member.

4. A method according to claim 3, wherein the antenna template is removably mounted to the workspace member.

5. A method according to any one of claims 1 to 4, wherein the antenna template comprises a cylinder and the wound wire defines a circular locus.

6. A method according to any one of the preceding claims, wherein the feedthrough member comprises a first portion and a second portion, the first and second portions being mountable or mounted in a chassis or wall of the housing.

7. A method according to claim 6, wherein each of the first or second portions have at least one conductive post extending therethrough.

8. A method according to claim 6 or 7, wherein the step of connecting the first portion of each wire to the feedthrough member comprises connecting the wire to the first portion of the feedthrough member, and the step of connecting a second portion of each wire to the feedthrough member comprises connecting the wire to the second portion of the feedthrough member.

9. A method according to claim 8, wherein the wire is connected to the feedthrough member using a wire bonder.

10. A method according to any one of the preceding claims, wherein the first portion of the wire comprises an end of the wire.

11. A method according to any one of the preceding claims, wherein the second portion of the wire comprises a location along the wire that is distal from the first portion.

12. A method according to any one of the preceding claims, wherein more than one wire is connected to the feedthrough member and wound around the antenna template.

13. A method according to any one of the preceding claims, wherein each wire is wound around the antenna template twice.

14. A method according to any one of the preceding claims, wherein the wire is formed from a biocompatible electrically conductive material.

15. A method according to any one of the preceding claims, wherein the wire is coated with an electrically insulating material.

16. A method according to any one of the preceding claims, wherein following completion of winding each wire and connecting the first and second portion of each wire to the feedthrough member, the formed antenna and the feedthrough member are removed from the workspace member.

17. A method according to claim 16, further comprising the step of encapsulating the housing, feedthrough member and antenna in an electrically insulating material.

18. An antenna and feedthrough member assembly as formed by the method of any one of the preceding claims.

19. An antenna and feedthrough member assembly according to claim 18, wherein the antenna is a receiver antenna.

20. An antenna and feedthrough member assembly according to claim 18 or 19, wherein the assembly is suitable for use in tissue-stimulating or sensor applications.

21. A method of forming a non-linear path of at least a portion of at least one electrically conducting wire extending between a first location and a second location, the method comprising the steps of:

forming a wire path template defining a non-linear path;

winding said wire through said template such that said wire adopts said non-linear path; and

removing the wire from said template.

22. A method according to claim 47, wherein the wire path template is removably mounted to a workspace member.

23. A method according to claim 21 or 22, wherein the wire path template is adapted to form an undulating wire path over said portion of the wire.

24. A method according to claim 23, wherein the wire path template comprises a series of spaced posts mounted to the workspace member that define the path about which the wire is to be wound.

25. A method according to claim 24, wherein the formed wire path is substantially sinusoidal.

26. A method according to any one of claims 23 to 25, comprising the additional step of removably mounting a feedthrough member of a housing to the workspace member.

27. A method according to claim 26, wherein the feedthrough member comprises the first location.

28. A method according to claim 27, comprising the additional step of connecting the wire to the feedthrough member.

29. A method according to claim 28, wherein an end of the wire is connected to the feedthrough member.

30. A method according to claim 29, wherein the wire is connected to the feedthrough member using a wire bonder.

31. A method according to claim 30, wherein the wire bonder also winds the wire through the path of the wire path template.

32. A method according to any one of claims 21 to 31, wherein the wire is formed from a biocompatible electrically conductive material.

33. A method according to any one of claims 21 to 32, comprising the additional step of coating the wire with an electrically insulating material.

34. A method according to claim 33, wherein the electrical connection formed between the wire and the feedthrough member is performed through the insulating layer.

35. A method according to claim 28, wherein following electrical connection to the feedthrough member, the wire undergoes a coating step wherein the wire is encapsulated in an electrically insulating material.

36. A method according to claim 35, wherein the coating step comprises passing the wire through a parylene coater so as to coat at least parts of the wire with a suitable layer of parylene.

37. A method according to claim 36, wherein at least some parts of the feedthrough member are masked to prevent their coating with parylene.

38. A method according to any one of claims 21 to 37, wherein the method further includes the step of encapsulating the feedthrough member and at least some of the wire in an electrically insulating material.

39. A method according to claim 38, comprising the additional steps of washing and drying the feedthrough member and the wire to render it suitable for implantation.

40. A wire having a portion thereof defining a non-linear path when formed by the method as defined in any one of claims 21 to 39.

41. A wire according to claim 40 for use in an implantable tissue-stimulating device.

42. A wire according to claim 41, wherein the implantable tissue-stimulating device is a cochlear electrode assembly.

43. A method of forming a device comprised of a predetermined pattern of at least two relatively electrically conductive regions, the method comprising the steps of:

working a sheet of electrically conductive material to remove predetermined portions therefrom to form said two or more discrete relatively conducting regions;

connecting at least one electrically conducting wire to at least one of said at least two or more relatively conducting regions; and

connecting a portion of each wire located distal said conducting regions to a common sacrificial member.

44. A method according to claim 43, wherein the step of working the sheet includes a step of punching the predetermined portions out of the sheet of electrically conductive material.

45. A method according to claim 44, wherein the predetermined portions punched out of the sheet are removed and separated from the sheet.

46. A method according to claim 43, wherein the step of working the sheet includes a step of slicing or cutting the predetermined portions out of the sheet of electrically conductive material.

47. A method according to claim 43, wherein the step of working the sheet comprises a process of using electrical discharge machining (EDM) or spark erosion to remove said predetermined portions out of the sheet.

48. A method according to claim 43, wherein the step of connecting each wire to the corresponding relatively conducting regions comprises a step of welding each wire to a respective relatively conducting region.

49. A method according to claim 48, wherein a distal end of each wire is welded to the conducting region.

50. A method according to claim 43, wherein the step of connecting each wire to the sacrificial member comprises a step of welding each wire to the sacrificial member.

51. A method according to claim 50, wherein a proximal end of each wire is welded to the sacrificial member.

52. A method according to claim 50, wherein the sacrificial member is in the form of a plate.

53. A method according to claim 52, wherein the plate is formed from a suitable metal to allow welding of the distal ends of the wires to the plate.

54. A method according to any one of claims 43 to 53, wherein each of the wires are individually welded to their respective conductive region and the sacrificial member.

55. A method according to claim 54, wherein an automatic welding machine is used to weld each wire to the conductive regions and the sacrificial member.

56. A method according to claim 55, wherein each wire is welded to the sacrificial member in a manner that allows ready identification as to which conductive region the wire is extending from.

57. A method according to claim 56, wherein the proximal ends of the wires are aligned transversely along the sacrificial member.

58. A method according to any one of claims 43 to 57, wherein each wire is formed from a biocompatible electrically conductive material.

59. A method according to claim 58, wherein each wire is coated with an electrically insulating material.

60. A method according to claim 59, wherein the electrical connection formed between the wire and the conductive region and/or the sacrificial member, is performed through the insulating layer.

61. A method according to claim 48 or 50, wherein following the formation of the electrical connection between the wire and the conductive region and/or the sacrificial member, the device undergoes a coating step wherein at least the wires are encapsulated in an electrically insulative material.

62. A method according to claim 61, wherein the coating step comprises passing the device through a parylene coater so as to coat at least parts of the device with a suitable layer of parylene.

63. A method according to claim 62, wherein the electrically conductive regions are masked to prevent their coating with parylene.

64. A method according to claim 63, further including a step of encapsulating the device in an electrically insulating material.

65. A method according to claim 64, wherein the encapsulated device undergoes a further washing and drying step to render it suitable for implantation.

66. A method according to any one of claims 43 to 66, wherein the device is an electrode array for an electrode assembly.

67. A method according to claim 66, wherein the electrode assembly is for use as an implantable tissue-stimulating device.